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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/529,408 | 03/29/2005 | Rolf Tittmann | CO/2-22756/A/PCT | 6758 |
| 324 | 7590 | 01/02/2008 | | |
| JoAnn Villamizar Ciba Corporation/Patent Department 540 White Plains Road P.O. Box 2005 Tarrytown, NY 10591 | | | EXAMINER SANDERS, KRIELLION ANTIONETTE | |
| | | | ART UNIT 1796 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,408

Applicant(s)

TITTMANN, ROLF

Examiner

Kriellion A. Sanders

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>6/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-17 are rejected under 35 U.S.C. 103(a), as being unpatentable over Hendi et al, US Patent No. 5,618,343 in view of Hao et al., US Patent No. 5,821,373.

Applicant's invention pertains to a coating having a thickness of from 5 to 25 *um*, comprising:

- ♦ a high- molecular-weight organic material,
- ♦ from 5 to 15 % by weight of 3,6-di(4'-biphenyl)-2,5-dihydro- pyrrolo[3,4-c]-pyrrole-1,4-dione, **based on the total non-volatile content**,
- ♦ at least one further colored pigment and
- ♦ optionally additionally white pigments, black pigments or effect pigments

Wherein, **based on the total amount of colored pigments**,

- (a) from 30 to 90 % by weight of 3,6-di(4'-biphenyl)-2,5-dihydro-pyrrolo[3,4-c]-pyrrole-1,4-dione pigment having a specific surface area of from 20 to 50 m²/g and

(b) from 10 to 70 % by weight of a further organic colored pigment having a specific surface area of from 10 to 40 m²/g, selected from the group consisting of quinacridones, diketo-pyrrolo[3,4-c]-pyrroles, dioxazines, indanthrones, perylenes, phthalocyanines and 3-amino-1 H-isoindol-1-one-oximato-metal complex pigments, and solid solutions and mixtures thereof, are present.

3. Hendi et al relates to pigment and coating compositions that are used to prepare pigmented coatings that exhibit metallic flop. The pigment compositions comprise a small particle size pigment and a flop-enhancing agent, wherein the flop-enhancing agent is a copper phthalocyanine, an indanthrone or a carbazole dioxazine compound. A method of enhancing the flop of a pigmented polymeric coating by incorporating one or more flop-enhancing agents into the composition is also disclosed. The small particle size pigment is any pigment having a specific surface area in the range from 40 to 100 m²/gram. Preferably, the small particle size pigment is a pigment having a specific surface area in the range from 50 to 90 m²/gram, in particular from 50 to 90 m²/gram. Pigments having a specific surface area within any of the above-described ranges are referred to as particle size optimized pigments throughout the patent. The surface area is measured by any acceptable method, preferably the BET method.

Preferably, the small particle size pigment is a 1,4-diketo-3,6-diaryl-pyrrolo[3,4-c]pyrrole (DPP) pigment, quinacridone pigment, a quinacridonequinone pigment or a solid solution pigment. Preferred solid solution pigments are those which contain one or more DPP, quinacridone and/or quinacridonequinone components. The pigments, coatings and resulting

products produced by Hendi et al are essentially the same as those of applicant's claims. The pigment compositions are prepared by methods known in the art, for example by conventional wet blending techniques. Hendi et al describes a process wherein a slurry containing the small-particle-size pigment and the flop-enhancing agent is mixed until homogeneous. The pigment composition is then isolated by filtering the slurry.

The patented pigment compositions contain from 0.1 to 10 percent by weight, based on the weight of the composition, of the flop-enhancing agent. Preferably, the pigment compositions contain from 2 to 6 percent by weight of the flop-enhancing agent. Most preferably, the pigment compositions contain 3 to 5 percent by weight of the flop-enhancing agent.

The patented pigment compositions are useful for preparing coatings, in particular, industrial coatings and automotive finishes.

In Example 14 of the reference, aluminum panels or sheets are treated with a grey acrylic primer, sprayed with two coats of basecoat paint to a film thickness of 15-20 microns and a dry film basis. The two sprayings are spaced by a 90 second flash at room temperature. After a flash of three minutes, two coats of an acrylic clear topcoat are applied to achieve a thickness of 37-50 microns on a dry film basis. The thickness of the coatings and products of Hendi et al are essentially the same as set forth in applicant's claims.

Immersion, coating, painting and spraying are all customary techniques for applying coating compositions and selection of any of these methods is obvious to the ordinary practitioner in this art at the time of applicant's invention. The pigment Red and Pigment violet dyes are generically encompassed by Hendi et al when patentee indicates that the patented pigment compositions comprise a small particle size pigment and a flop-enhancing agent,

wherein the flop-enhancing agent is a copper phthalocyanine, an indanthrone or a carbazole dioxazine compound. See col. 1, line 49 through col. 2, line 2; col. 3, line 55 through col. 4, line 9; col. 6, lines 37-67 and col. 7, lines 1-29.

Hoa et al relates to single-phase solid solutions of 3,6-bis-(biphenyl-4-yl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione also referred to in the patent literature as 1,4-diketo-3,6-bis(biphenyl-4-yl)pyrrolo[3,4-c]pyrrole), and a quinacridone or another pyrrolopyrrole, and to their preparation and to the use thereof as pigments. The novel solid solutions can be used as pigments for coloring high molecular mass organic material. The novel solid solutions are particularly suitable for coloring plastics, especially polyvinyl chloride, polyolefins, and paints, especially automotive paints. The compounds as set forth in formula I, II or III are either mixed in the desired ratio in powder form by generally known methods, and the mixture is dissolved in the solvent, or they are first dissolved and the solutions are then mixed in the desired ratio. The concentration of the compounds of the formula I, II and/or III in the solvent or solvent system may vary sharply depending on the solvent. It is expedient to employ from 0.1 to 20% by weight of compound of the formula I, II and/or III, based on the total solution, and preferably from 0.2 to 5% by weight.

Hoa et al provides additional documentation that the pigments of Hendi et al are known in the art and that the 3,6-bis-(biphenyl-4-yl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione of Hoa et al is synonymous with the 1,4-diketo-3,6-bis(biphenyl-4-yl)pyrrolo[3,4-c]pyrrole) of Hendi et al. Hoa et al further documents that the pigments are used for formulating coatings at the prescribed weight ratios. Therefore, the combined use of the pyrroles and additional pigments

set forth in the references would have been obvious to one of ordinary skill in the art at the time of applicant's invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122.

The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kriellion A. Sanders
Primary Examiner
Art Unit 1796